

DESIGNING IMPROVED HUMANIZED IMMUNOGLOBULINS

ABSTRACT OF THE DISCLOSURE

5 Novel methods for designing humanized
immunoglobulins having one or more complementarity
determining regions (CDR's) from a donor immunoglobulin and a
framework region from a human immunoglobulin comprising first
10 comparing the framework or variable region amino acid
sequence of the donor immunoglobulin to corresponding
sequences in a collection of human immunoglobulin chains, and
selecting as the human immunoglobulin one of the more
homologous sequences from the collection. Each humanized
immunoglobulin chain may comprise about 3 or more amino acids
15 from the donor immunoglobulin in addition to the CDR's,
usually at least one of which is immediately adjacent to a
CDR in the donor immunoglobulin. The heavy and light chains
may each be designed by using any one or all three additional
position criteria. When combined into an intact antibody,
20 the humanized immunoglobulins of the present invention will
be substantially non-immunogenic in humans and retain
substantially the same affinity as the donor immunoglobulin
to the antigen, such as a protein or other compound
containing an epitope.

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WP50/ PDL/ PA9.PTO

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